

## BAILEY SITE REPORT – POST HURRICANE IKE

12 November 2008

To: Eve W. Barron, Senior Counsel – Environmental Practice Group

From: Julie Larson

Subject: Bailey Site Conditions – Post Hurricane Ike

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This report provides a summary of the site conditions at the Bailey Superfund Site following Hurricane Ike.

Julie Larson and Keith Ganze, from Parsons, and Doug Wall, from American Remediation Options (ARO), conducted a walk-through of the site on October 2, 2008, to assess any damage as a result of Hurricane Ike, which made landfall east of Surfside, Texas, on September 13, 2008. Even though the eye of the hurricane made landfall west of the Bailey site, the Bailey site was impacted by storm surge.

The following is a status of repairs that needs to be addressed to restore the Bailey site to meet the long-term O&M objectives.

### **Site Access/Security Fence/Perimeter Signs:**

- The access bridge to the property does not appear to have sustained any damage from the storm surge. The road access leading to the outside gate area on the access bridge does have erosion on the south side. The property is still accessible; however, this portion of the access area needs to be monitored for additional erosion that could impact the road-bridge access. See Photo 1 and 2.
- The chain link fencing and barbed wire on both sides of the access bridge is damaged/down and needs to be repaired/replaced. See Photos 3 and 4.
- The fencing along the East Dike Cap from the access bridge to approximately the third gas vent has been pushed over by the storm surge and needs to be repaired/replaced. The total length of affected fencing to replace is approximately 900 feet. See Photos 5 through 7.
- Select signs located around the perimeter of the property sustained damage. The signs on the East Dike Cap fence are still intact on the fence. There were only two signs missing/damaged along the North Dike Cap. See Photos 8 and 9.

## **East Dike Cap**

- Due to storm surge, the East Dike Cap did have flood waters over the top of the cap. Per visual appearance of the cap, gas vents, and surrounding property, the water was estimated to be approximately 2-3 feet above the level of the cap.
- All of the gas vents are upright and in good condition. The only damage noticed is the rocks inside the vents have been pushed out onto the cap, due to the surge movement during the storm. See Photo 10.
- The area on the East Dike Cap between the 3<sup>rd</sup> and 4<sup>th</sup> gas vent continues to be an area of concern regarding settlement. Our site visit was conducted approximately two weeks after the hurricane made landfall. The ground in the area between the 3<sup>rd</sup> and 4<sup>th</sup> gas vents was still moist from the flood waters associated from the hurricane. See Photos 11 and 12.

## **North Dike Cap:**

- Due to storm surge, the North Dike Cap did have flood waters over the top of the cap. Per debris left by the movement of the surge, it appears that the North Cap was underwater, but the depth of the flood varied due to the slope of the cap. There is a debris line on the North Dike Cap from approximately the 1<sup>st</sup> gas vent to the 3<sup>rd</sup> gas vent. The debris is mostly hay and vegetative material; however, there are a few large timbers and in the debris. See Photos 13 and 14.
- All of the gas vents are upright and in good condition. The only damage noticed is the rocks inside the vent basins have been pushed out onto the cap, due to the surge movement during the storm, as they were on the East Cap as well. See Photo 15.
- The brick wall that the property owner built was pushed over by the surge waters. The wall fell towards the eastern edge of the North Dike Cap. The sign located at the edge of the cap is missing. See Photo 16.

## **Conclusion and Recommendations**

The Bailey site has fared well through Hurricane Ike, considering the storm surge. The main damage is to the security fence along the perimeter of the property.

Parsons recommends that the Bailey Site Settlers Committee approve the following actions:

- Repair/replace the damaged perimeter fence as noted in this report,
- Repair/replace the damaged and missing signs as noted in this report,
- Remove the debris left by the storm surge, and
- Conduct a land survey on the East Dike Cap. This survey will be compared to the survey conducted in 2005 to calculate the level of settlement on the East Dike Cap, if any.

Upon approval of these recommended actions, Parsons will gather detailed budget information for each activity and propose a total budget to complete these tasks as quickly as possible before the end of the 2008 calendar year.



**Photo Log**  
**Bailey Site Visit – 2 October 2008**



Photo 1 – Erosion at access bridge – looking west onto property



Photo 2 – Erosion at access bridge – looking east towards highway 87



Photo 3 – Fence over channel on north side of access bridge, looking northwest.



Photo 4 – Fence on south side of access bridge, looking southwest.





Photo 5 – Fence in laydown area on edge of East Dike Cap, looking south



Photo 6 – Fence on East Dike Cap at each of cap area, looking south



Photo 7 – Fence as shown along East Dike Cap at third gas vent, looking south



Photo 8 – Sign missing in channel on south side of North Dike Cap



Photo 9 – Sign damaged in channel on north side of North Dike Cap



Photo 10 – East Dike Cap Gas Vent – rocks on west side of vent





Photo 11 – Saturated soil in area of concern on East Dike Cap



Photo 12 – Another photo of saturated soil between 3<sup>rd</sup> and 4<sup>th</sup> gas vent on East Dike Cap



Photo 13 – Debris line on North Dike Cap – looking east



Photo 14 – Debris line on North Dike Cap – looking west



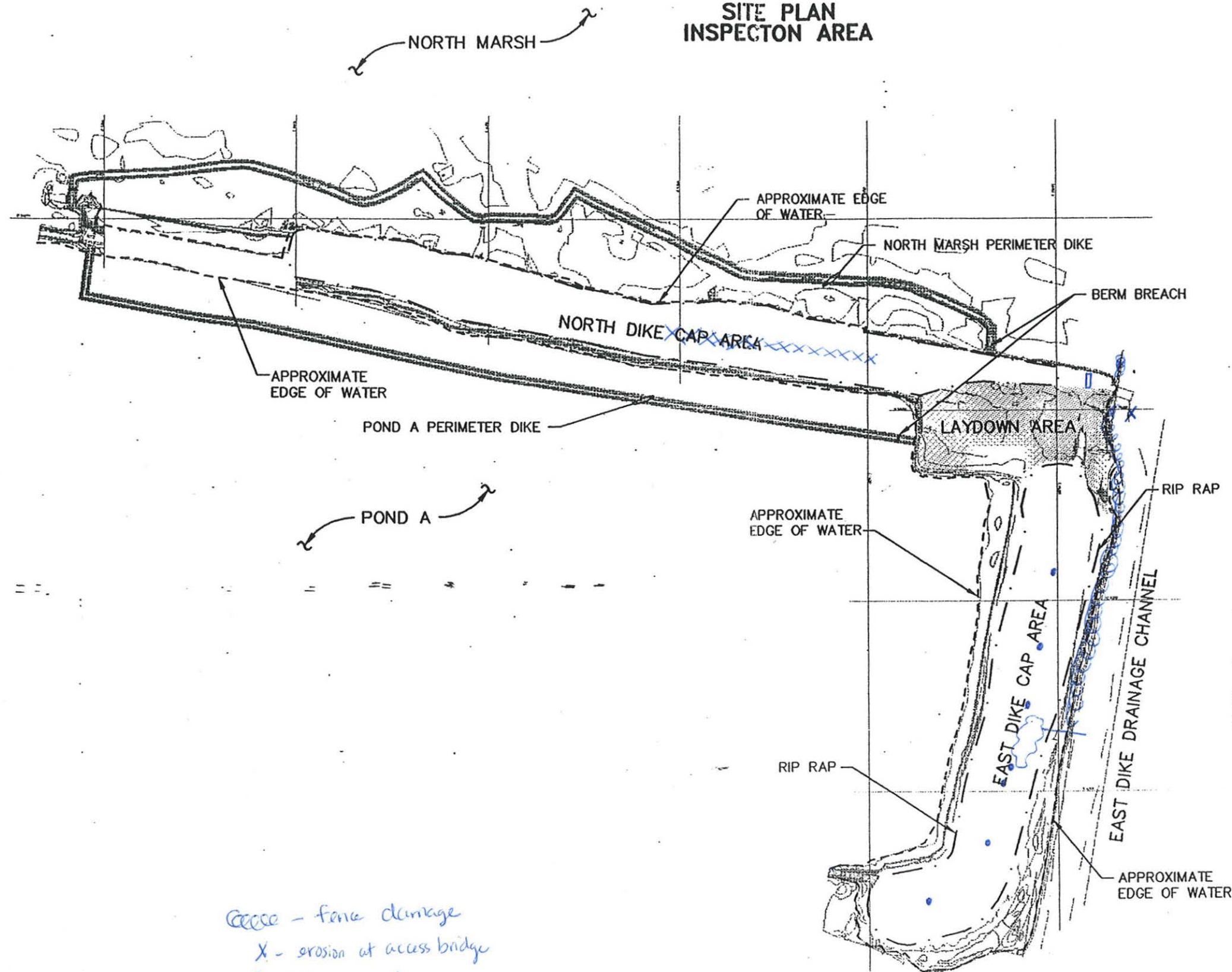


Photo 15 – Gas Vent on North Dike Cap – rocks pushed out of vent basin by surge



Photo 16 – Brick wall and missing cap limit sign on North Dike Cap, looking west-southwest

# SITE PLAN INSPECTION AREA



## NOTES:

1. DRAWING BASED ON PREVIOUS SITE TOPOGRAPHIC INFORMATION AND DESIGN DRAWINGS. DRAWING IS NOT BASED ON FINAL AS-BUILT DATA.
2. LOCATION OF EDGE OF WATER SHOWN IS THE LOCATION AT THE TIME OF SURVEY. WATER LEVELS SUBJECT TO TIDAL VARIATIONS. AVERAGE TIDE ELEVATIONS ARE: LOW TIDE - -2.0 FEET (MSL) AND HIGH TIDE +1.0 FEET (MSL). TIDE ELEVATIONS ARE SUBJECT TO VARIATION DEPENDING ON SEASON AND LOCAL WEATHER CONDITIONS.
3. RIPRAP LOCATED ON ALL SLOPES.
4. INSPECTION AREA TO INCLUDE, AS A MINIMUM,
  - NORTH DIKE CAP AREA
  - EAST DIKE CAP AREA
  - ALL AREAS OF RIP RAP
  - VISUAL OBSERVATION OF PERIMETER DIKES
  - ACCESS BRIDGE
  - SITE FENCING (FIGURE 2.2)

## LEGEND - GENERAL

- EXISTING CONTOUR (FEET)
- ANCHOR TRENCH
- APPROXIMATE LIMIT OF GRAVEL SURFACING

0 300  
SCALE IN FEET



**GEOSYNTEC CONSULTANTS**

ATLANTA, GA

PROJECT NO. GE3913-620	FIGURE NO. 2.1
DOCUMENT NO.	FILE NO. 3913F004